



State of Utah

DEPARTMENT OF TRANSPORTATION

JOHN R. NJORD, P.E.
Executive Director

CARLOS M. BRACERAS, P.E.
Deputy Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

October 3, 2007

Claudia H.
Mrs. McMullan's Class

Dear Claudia,

Mr. Njord asked me to respond to your letter concerning salt use in Utah.

Here in Utah we use salt to melt ice on our roads that we cannot remove by snow plows. Most of the salt is made by drying the water from the Great Salt Lake. Some salt is comes from a salt mine. The same company that makes table salt sells us salt for our roads. The amount of salt we apply is equal to two pieces of salt in the sample per square foot.

If our roads get icy, we also sometimes use crushed rock, called grit, to made icy roads safer for cars. Grit does not melt ice or snow. It just gives the cars better traction so that the tires grip the road better.

You asked about the effect of these products on the roads and on the environment.

Salt does not affect asphalt pavement. Salt can cause the reinforcing steel used in bridges and concrete to rust. We measure the salt we apply very carefully so that we only put enough on the road to keep ice from forming. We do not use salt to melt snow. We push the snow off the road and then put a small amount of salt on the road.

Some scientists claim that road salt can pollute streams and groundwater. In Utah we have not had any pollution damage due to road salt. We carefully test streams and well water for salt contamination. By using only the amount of salt we need we limit how much might escape from the road.

Road salt can hurt plants that are near the road. Again we try to use only what we have to keep our roads safe.

If grit gets into streams it can cause damage to areas where fish spawn. Grit can also clog storm drains and storm water ponds. If small particles of grit are left on the road it can make dust and might add to air pollution. We have air pollution problems in Salt Lake City and other large Utah cities, so we use grit in those areas only in emergencies. Where we use grit outside our big cities we sweep it up after the storm.



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I have enclosed some pictures and samples of rock salt, Great Salt Lake salt, and grit for your use. Several copies of our new state road map are also enclosed.

Mrs. McMullan can contact me if she would like the computer file copies of these pictures.

Respectfully,

Lynn J. Bernhard P.E.
Maintenance Methods Engineer



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UDOT photo by Lynn Bernhard

Bridge column reinforcing steel rusted by salt from snow plowing. I-15 North Salt Lake, Utah.



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UDOT Logo



UDOT photo by Michael Evans

Utah DOT Snow Blower clears State Route 210 near Brighton Ski Resort



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UDOT photo by Andrew Neff

Utah DOT trucks plowing Interstate 15 near Farmington, Utah



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UDOT photo by Richard Looock

Snow on Utah State Route 143 at Cedar Breaks National Monument, east of Cedar City, Utah – taken June 3, 2006



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UDOT photo by Lynn Bernhard

Utah DOT Snow Plow Ready for the Winter